

WHAT IS CLAIMED IS:

5 *Sub* 1. A screen ink printed film carrier, [comprising] a thin film carrier layer supporting an ink pattern containing an electrically resistive or conductive material and a curable resin, wherein said thin film carrier layer comprises a curable adhesive material in contact with said ink pattern.

10 *B* 2. The screen ink printed film carrier of claim 1, wherein said thin film carrier *layer* comprises a fibrous sublayer and a continuous surface layer attached to said fibrous sublayer, said continuous surface layer comprising a thermosetting resin.

15 3. The screen ink printed film carrier of claim 2, wherein said fibrous sublayer is a textile material selected from the group consisting of a woven layer, a knit layer, a scrim layer, and a nonwoven layer.

20 4. The screen ink printed film carrier of claim 2, wherein said fibrous sublayer is a woven polyester.

25 5. The screen ink printed film carrier of claim 2, wherein said fibrous sublayer is selected from the group consisting of a polyester scrim and a nylon scrim.

30 6. The screen ink printed film carrier of claim 2, wherein said thin film carrier has an overall thickness of about 3 to about 25 mils.

7. The screen ink printed film carrier of claim 2, wherein said thermosetting resin contained in said continuous surface layer is selected from the group consisting of an epoxy compound, a cyanate ester compound, and a phenolic compound.

8. The screen ink printed film carrier of claim 1, wherein said curable resin contained in said ink pattern comprises a thermosetting resin selected from the group consisting of phenolic, phenolic/epoxy mixtures, and polyimide.

9. The screen ink printed film carrier of claim 1, wherein said ink pattern is a hexagonal shaped pattern.

10. The screen ink printed film carrier of claim 1, wherein said ink pattern contains a conductive material selected from the group consisting of silver, nickel, copper, platinum, and palladium.

11. The screen ink printed film carrier of claim 1, wherein said ink pattern contains a magnetic material selected from the group consisting of iron and ferrites.

12. An electrically modulated device, comprising a substrate having adhesively bonded to an exterior surface thereof a screen ink printed film carrier, wherein said screen ink film carrier comprises a thin film carrier layer supporting an ink pattern containing an electrically resistive or conductive material and a cured resin, and wherein said thin film carrier layer comprises a cured thermosetting adhesive material in contact with said ink pattern.

13. The device of claim 12, wherein said substrate is operative electronic circuitry.

14. The device of claim 12, wherein said substrate is selected from RAM or RAS.

15. The device of claim 12, wherein said screen ink printed film carrier is adhesively bonded to a three-dimensional surface of said substrate with said ink pattern in contact with said three-dimensional surface.

16. A method of bonding a screen ink printed film carrier to a three-dimensional surface of an electronic device, comprising:

providing a thin film carrier comprising a curable adhesive material;

screen printing on said curable adhesive material of said thin film carrier an ink pattern containing an electrically resistive or conductive material and a curable resin to provide a screen ink printed film carrier;

contacting said screen ink printed film carrier to the three-dimensional surface of the electronic device; and

applying heat and pressure effective to co-cure said curable resin of said ink pattern and said curable adhesive material of said thin film carrier and bond said screen ink printed film carrier to the three-dimensional surface of the

electronic device.

17. The method of claim 16, wherein said screen printing step comprises a first substep of screen printing a carbon-loaded phenolic resin on said thin film carrier followed by a second substep of screen printing silver on said previously coated carbon-loaded phenolic resin.

18. The method of claim 17, wherein said curable resin used in said screen printing step comprises a screen printing thermosetting resin having silver particles dispersed therein on said thin film carrier, wherein said thermosetting resin comprises an epoxy-hardenable phenolic.

19. The method of claim 16, wherein said electrically resistive or conductive material is selected from the group consisting of silver, nickel, copper, platinum, and palladium.

20. The method of claim 16, wherein said film carrier comprises a fibrous sublayer and a continuous surface layer attached to said fibrous sublayer, said continuous surface layer comprising a thermosetting resin.